

Title: Online Learning Modules to Improve Access to DEC Category Recertification Credits for Fruit and Vegetable Farmers

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Funding source: Smith-Lever

Abstract: New York farmers who apply or supervise the use of restricted use pesticides are required to be certified by the New York State Department of Environmental Conservation (DEC) and must obtain recertification credits through continuing education to maintain certification. CCE educational meetings are an important source of DEC recertification credits, but fruit and vegetable extension programming is uneven across the state and some farmers must travel to statewide conferences to obtain credits. Online modules offer a convenient option with flexible timing and little or no travel required. Farmers can access them from home or from their county extension offices. Currently, Cornell does not offer online courses for DEC category credits, and commercial firms from out of state are stepping into the gap. New York farmers would be better served by courses that include material that is based on local research, are relevant to New York conditions, and focus on extension priorities identified by farmers and other stakeholders.

Background and justification: New York farmers who apply or supervise the use of restricted use pesticides are required to be certified by the New York State Department of Environmental Conservation (DEC) and must obtain recertification credits through continuing education to maintain certification. One quarter of the credits must be within the category (commodity) for which certification was obtained. CCE educational meetings are an important source of DEC recertification credits. Not all counties are able to support staff to provide local programming for commercial fruit and vegetable growers. Statewide educational meetings are centrally located and involve overnight travel for many farmers. As small business owners, it is difficult for farmers to leave the farm for continuing education, and they often find themselves short of credits at license renewal time. Online modules offer a convenient option with flexible timing and little or no travel required. Fifty nine percent of New York farmers have internet access and that number has increased for the past three years (NASS, 2007). Currently, Cornell does not offer online courses for DEC category credits, and commercial firms from out of state are stepping into the gap. New York farmers would be better served by courses that include material that is based on local research, are relevant to New York conditions, and focus on extension priorities identified by farmers and other stakeholders.

Objectives:

- 1) Produce online educational modules that qualify for NYS Department of Environmental Conservation (DEC) pesticide recertification credits.
- 2) Create a portal for accessing modules that meets DEC requirements for identifying users and Cornell University requirements collecting course fees.

Procedures:

- 1) Moodle, an open-source online course development software, is being used to create courses. Content providers can create new materials to integrate into modules or use existing content. Staff hired through the grant work with content providers to integrate content into Moodle. Moodle allows a variety of media to be integrated into learning modules and includes evaluation tools such as quizzes to be integrated into course content. Each module includes a pre-test and post-test. This will allow us to assess the level of learning achieved by users. Users will be required to score 70% or higher on the post-test to earn DEC recertification credits.
- 2) Cornell's protocols for online payment are being integrated into the Moodle software supported by CCE. A home page that provides links to Cornell online DEC recertification courses has been developed. The end product will be a process that identifies module users, collects course fees, and navigates users between the identification and payment system and modules. An email account has been established so that once a user has successfully completed a course, notification will be sent to PMEP and a course certificate will be printed and mailed.

Results and discussion:

A web site is being developed by Gardner that will be a portal for accessing online recertification courses. Users will need to be identified and course fees collected before courses can be accessed for DEC credits. Recent changes in Cornell's requirements for online vendors will need to be navigated before this aspect is active. Gardner has converted several web-based Core recertification modules into Moodle. Seaman, Wells, and Kowalski have developed a text and image-based biocontrol module, and Hoepting has developed a narrated Powerpoint presentation on identification, biology, and management of swede midge that has been integrated into a module. Both are for Category recertification credits. A text and image-based sweet corn IPM module is in progress. Modules on grape pest management and ecological weed management are in the planning stage.

This project is still under development and is not yet at the stage at which we can solicit review from potential users. Once it is ready we will ask county-based extension educators and selected farmers to comment on the content and process of using modules and make suggested changes.

Project Locations

These modules will be useful to fruit and vegetable farmers and extension educators throughout New York.

Resources Developed

The following site has been established to provide infrastructure for accessing modules for DEC credits:

<http://psep.cce.cornell.edu/pmeponline/default.html>